User Guide for Interactive Report I

2009-10 Influenza Vaccination Coverage

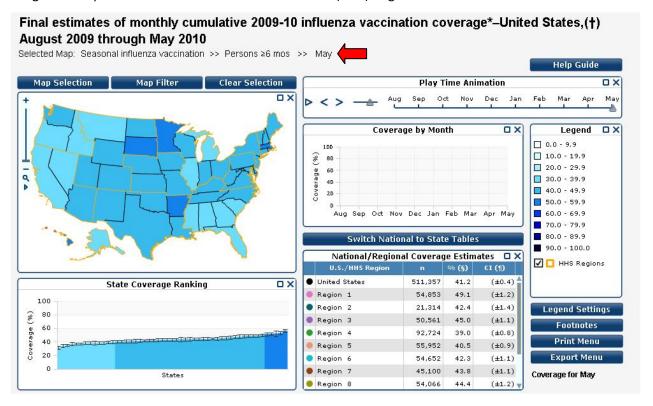
The **interactive report I** displays the 2009-10 monthly cumulative influenza vaccination coverage estimates based on self-reported influenza vaccinations from the Behavioral Risk Factor Surveillance System (BRFSS) and National H1N1 Flu Survey (NHFS). See *Methods and limitation companion report* on the <u>influenza vaccination coverage</u> webpage for further data analysis description.

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Map Selection

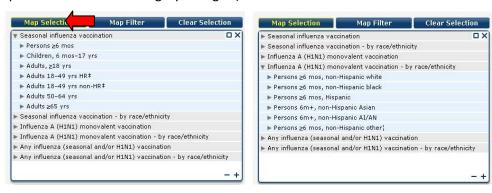
• The **interactive report I** initially displays cumulative 2009-10 seasonal influenza vaccination coverage estimates for persons 6 months and over for May 2010. The map of the United State also shows the states lined by their designated Department of Health and Human Services (HHS) Regions.

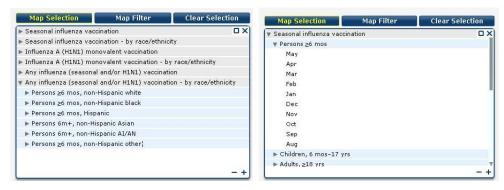


To select other influenza vaccinations click the Map Selection button.



• The **Map Selection** menu lists influenza vaccination categories specific to the 2009-10 influenza season. The menu displays the months of available data for seasonal influenza, influenza A (H1N1) 2009 monovalent, or any influenza (seasonal and/or H1N1) vaccination by age/priority groups and by racial/ethnic groups. Select the desired influenza vaccination to view the groups and subgroups within them (to expand or collapse the list of options click on the small grey triangles).

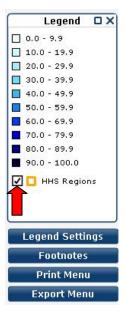




- Click '+' button in the bottom right corner of the Map Selection window to expand all available influenza
 vaccination categories, groups and subgroups (months).
- Click '-' button in the *bottom right corner* of the **Map Selection** window to collapse all available influenza vaccination categories, groups and subgroups (months).
- Click 'x' button in the *top right corner* of the Map Selection window to close the selection menu.

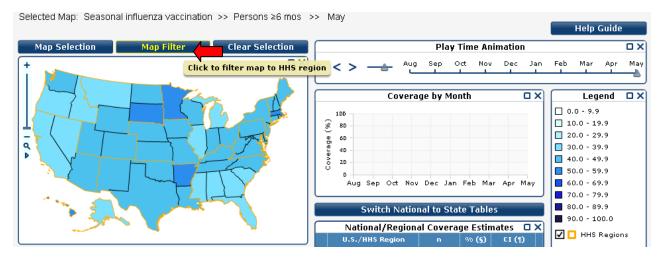
Map Layers

 HHS Regions outlines in the United States map are selected by default. Click the check box in the legend box to toggle the HHS Regions outlines on / off.

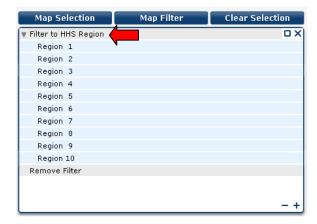


Map Filter

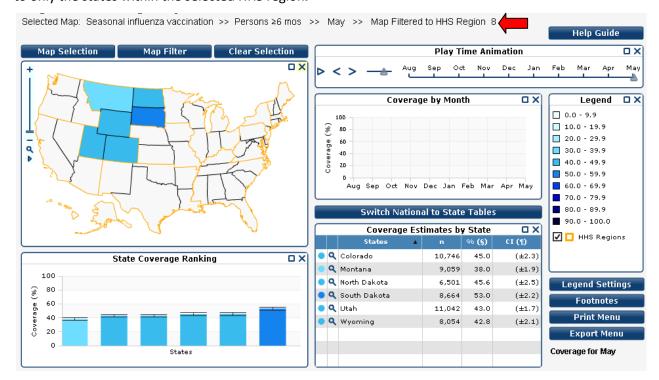
• The map can be filtered to HHS regions. To select a region click on the **Map Filter** button.



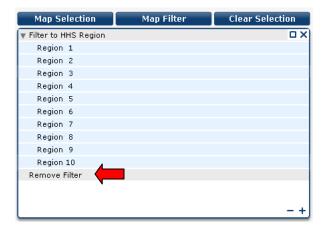
• Select the desired HHS region from the Map Filter menu.



Once the desired region is selected, only the states within the specific region remain shaded in the map
accordingly. The State Coverage Ranking bar chart and the Coverage Estimates by State table are also reduced
to only the states within the selected HHS region.



• To clear the filtered region and return the map and other figures to the original look, go back to the **Map Filter** menu and select the *Remove Filter*.

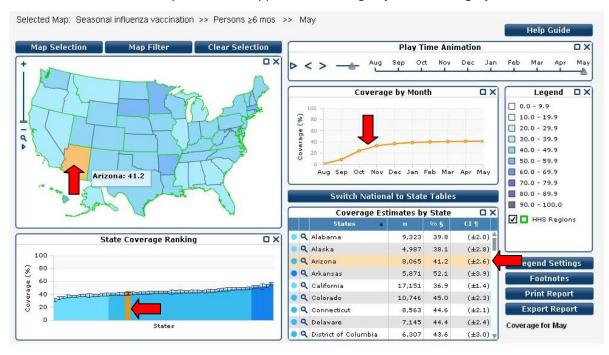


Interactive Features

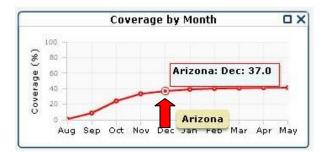
Map and Charts

- Once the desired vaccination categories are selected, the map is updated automatically. States are shaded based on their coverage values, as specified by the map legend. The shading for the map corresponds to the shading in the *State Coverage Ranking* bar chart, which includes error bars representing the 95% confidence intervals of each state's vaccination coverage estimate.
- Hold the mouse pointer over any state in the map (without clicking it to select) to display its name and
 vaccination coverage level. The state highlights orange in the map along with its corresponding place in the

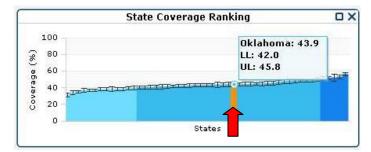
 State Coverage Ranking bar chart and the Coverage Estimates by State table. For the highlighted state, a trend
 of cumulative vaccination by month also appears in Coverage by Month line graph.



- The Coverage by Month line graph shows the vaccination cumulative coverage by month throughout 2009-10 influenza season (from August 2009 through May 2010). Hold your mouse over a state in the map, the State Coverage Ranking bar chart or the Coverage Estimates tables (either by state or by region) to view a vaccination coverage trend in the Coverage by Month line graph.
- Click a feature in the map, data table or bar chart to select it and freeze the trend in the *Coverage by Month* line graph. Selecting a state will shade it red. Hold the mouse pointer over the points in the *Coverage by Month* graph to display the month and coverage level of the selected state.



• The *State Coverage Ranking* bar chart displays error bars representing the lower (LL) and upper (UL) boundaries of the 95% confidence intervals associated with the vaccination coverage estimate for the featured month and state. Hold the mouse pointer over any of the bars in the *State Coverage Ranking* bar chart to display the state name, its' influenza vaccination coverage estimate and 95% LL and UL confidence intervals.



• To clear any selections click on the **Clear Selection** button.



• See <u>Comparisons</u> for further guidance on selecting multiple geographic areas and producing comparisons between geographical areas in *Coverage by Month* line graph and *State Coverage Ranking* bar chart.

Coverage Tables

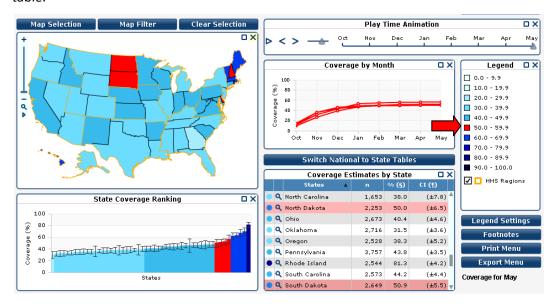
To move between the National/Regional Coverage Estimates table and Coverage Estimates by State table,
click the Switch National to State Tables button. Both tables provide the name of the geographical area (state
or region), the sample size, the coverage estimate and the 95% confidence interval. Both tables can be sorted
by each of these columns.



• The Coverage Estimates by State table also provides the legend color for each state corresponding to the state's shade in the map, and a zoom-to-state feature represented by the magnifying glass. The National/Regional Coverage Estimates table colors correspond to it shading in the Coverage by Month line graph and State Coverage Ranking bar chart.

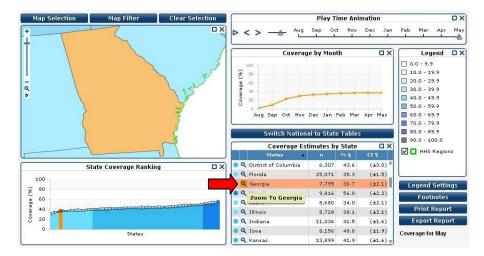
Legend

• States can also be selected through the legend. Hold your mouse pointer over a class in the legend to highlight the states that fall into that class. Click the desired class (on the square figure) to select the states that fall within that class. The selection will appear in red in the map, the bar chart, the line graph, and the coverage table.

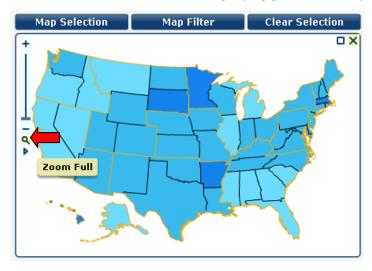


Zoom

- Use the slider bar on the left of the map to zoom in and out. You can also use the scroll wheel on your mouse to zoom in and out of the map.
- To zoom to a specific state, go to the *Coverage Estimates by State* table and select the zoom-to-state feature (signified by a magnifying glass) of the desired state.



• Click the zoom full icon (bottom magnifying glass in the map window) to return the map back to full view.

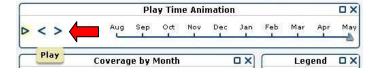


Map Animation

• The **time animation** feature can be used to view how influenza vaccination coverage of each of the states in the United States changes over time. You can click on the bar to change the month that is currently displayed.



You can also use the left and right arrow buttons to step through each of the months, or click the "play"
 (triangle) button to cycle through all the available months for the currently selected vaccination. You can pause
 the animation by clicking on the pause button (the two parallel vertical dashes; available after "play" has been
 selected).

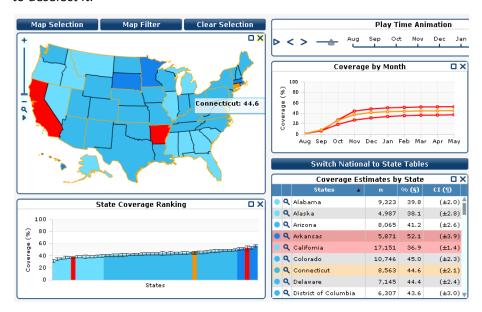




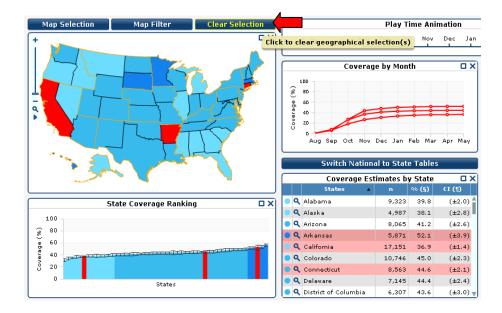
Comparisons

Compared to Other States

• The user can start a comparison by selecting a state in the map, in the bar chart or in the state coverage table. To select other states, hold the 'Ctrl' key to select multiple states or hold the 'Shift' key to select a range of states. To select an extended area, use the 'Ctrl' key and click and drag a box in the map. The states within the box drawn will become selected. Selected state(s) will appear shaded red in the map, the bar chart, the time series line graph, and the state coverage table. Holding the 'Ctrl' key and clicking on a selected state allows you to deselect it.

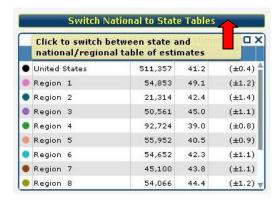


- The *Coverage by Month* time series chart displays trends for influenza vaccination coverage estimates for each of the selected states to allow comparison of vaccination coverage by month.
 - A note of caution: because all the states selected will appear red in the line graph, users interested in this feature should limit their comparisons to a maximum of three states.
- To clear any comparisons click on the **Clear Selection** button.

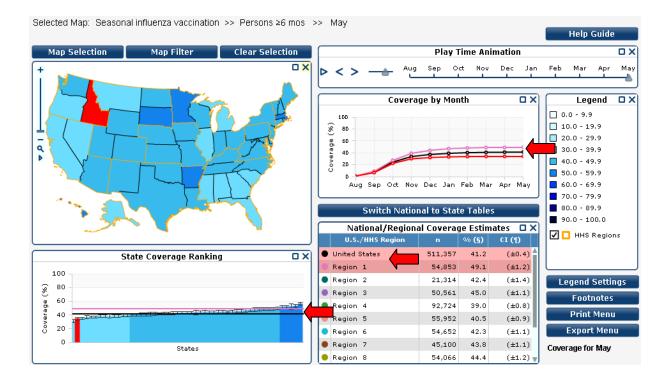


Compared to United States or HHS Regions

To view and compare to national and regional influenza vaccination coverage estimates select the desired
area(s) from the National/Regional Coverage Estimates table. Again, to move between national and state
influenza vaccination coverage tables, click the Switch National to State Tables button.

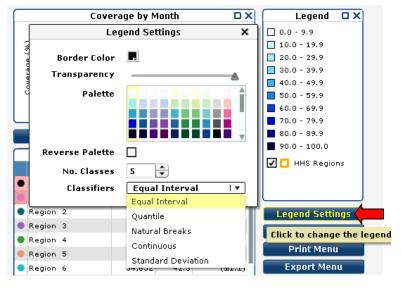


On the State Coverage Ranking bar chart, national and regional coverage estimates of influenza vaccination are shown using a horizontal line across the bars. At the same time, a trend line will appear in the Coverage by Month graph. The colors of the horizontal line in the State Coverage Ranking bar chart, as well as the color of the trend line in the Coverage by Month graph, are designated by the solid circle next to its' name in the National/Regional Coverage Estimates table.



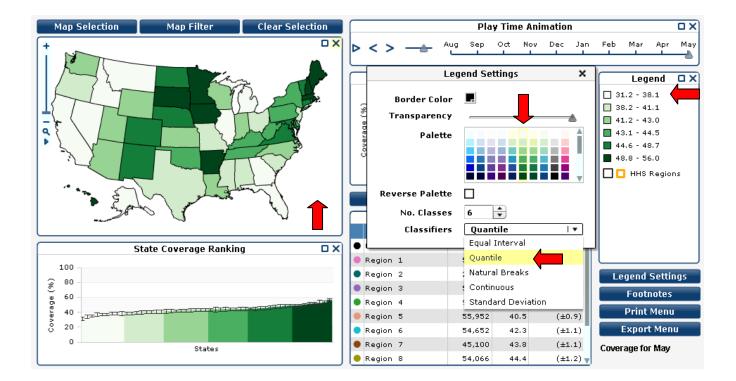
Legend Settings and Personalization

The legend is displayed in the *Legend* box and can be changed as needed by clicking on the *Legend Settings* button below. This will open the *Legend Settings* dialogue box.



- The legend and influenza vaccination coverage classes are initially defaulted. Such things as border color,
 palette, number of classes and classifiers can all be designated by the user for personal applications. The items
 available in the Legend Settings menu are described as follows:
 - o **Border color**: The color of the border around each state on the map.
 - o **Transparency**: By sliding the bar, the transparency of the states in the map can be lighter or darker.
 - Palette: You can change the color palette used in the map by selecting other available palettes.
 - Reverse Palette: By checking this box you can reverse the color palette (in example, change light-todark to dark-to-light and vice versa).

- No. Classes: You can increase or decrease the number of classes by clicking the increase or decrease buttons (labeled with black arrows).
- Classifiers: Select a classifier from the drop-down. This will decide how the ranges are calculated.
 - Equal Interval: The intervals between class breaks are equal. Class breaks are calculated onthe-fly and will update if you change the number of classes. The advantage of the equal-interval classification is that many users find it simple to understand. However, a disadvantage is that only the minimum and maximum data values are used when determining class breaks for the intervals.
 - Quantile: Each class in the legend contains an approximately equal number of states. Class breaks are calculated on-the-fly and will update if you change the number of classes (tertiles, quartiles, quintiles...). Two advantages of the quantile classification are that it is appropriate for ordinal data (as data are rank-ordered) and that it can help make map comparisons (assuming that the same number of classifications is used for all maps). A disadvantage of the quantile classification is that it does not consider how the data are distributed. If the data distribution is highly skewed, data observations will be forced into the same class (either the lowest or highest) where this may not be appropriate. As a result, the quantile classification may give a false impression that there is a relatively normal data distribution.
 - Natural Breaks: This classification method is also known as Optimal Breaks and Jenks' Method. Class breaks are calculated on-the-fly and will update if you change the number of classes. Data are assigned to classes based upon their position along the data distribution relative to all other data values. An iterative algorithm is used to assign values to classes such that the variances within all classes are minimized whereas the variances among classes are maximized. The advantage of this classification is that the data distribution is explicitly considered for determining class breaks. However, the disadvantage is that users may not understand the classification method used and that class breaks may not be immediately intuitive.
 - Continuous: Each geographic feature is shaded a different shade using a continuous scale. This
 legend type is useful for identifying extremely high or low values.
 - Standard Deviation: Class breaks reflect the number of standard deviations from the data average (or mean). States are classified according to how many standard deviations above or below the average their coverage estimate value falls. You cannot change the number of classes for this legend type.



Report Options

• Click the blue square in the top right corner of **any box** to maximize.

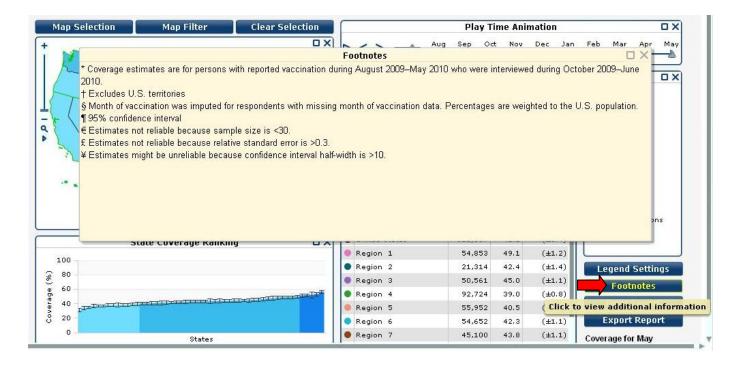


• Click the blue arrow in the top right corner of the **maximized box** to restore the box down.



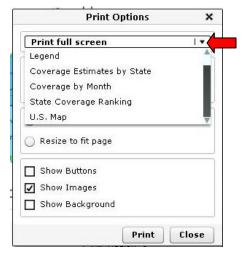
Footnotes

• Footnotes specific to 2009-10 influenza vaccination coverage are displayed by selecting the **Footnotes** button, which opens a window shown as a pop-up notepad. To close the window, either select the **Footnotes** button again or select the **X** in the top right corner.

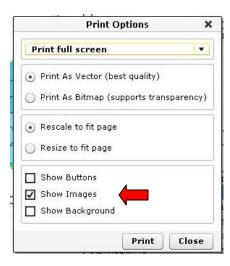


Print Menu

Printing options for the full interactive report or individual components of the report are available by selecting
the Print Menu button, which opens the menu as a pop-up window.

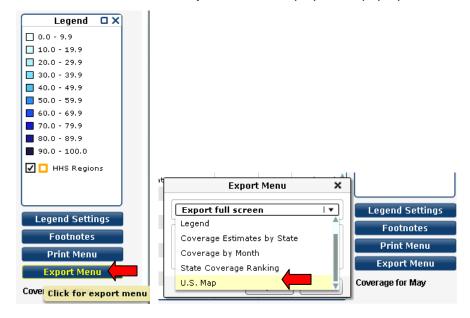


- There are two print modes available to select: 'Rescale to fit page' or 'Resize to fit page'. 'Rescale to fit page' means that you will get exactly what you see on your screen as a printout, rescaled to fit the paper size. The quality of the output (especially text) might not be quite as crisp as for the resize option. 'Resize to fit page' means that the report internally resizes all components individually to fit to the paper size. The output will be crisp but text in the report may appear larger than on the screen, you might see different chart axis labels and scroll bars may appear although they are not present on your screen.
- You also have the options to have the buttons within the interactive report showing in your printed output. You
 can also choose to have the images and the background appear in the printed output by checking or unchecking
 the respective boxes.



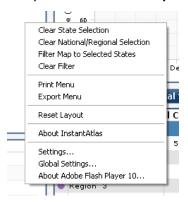
Export Menu

• The **Export Menu** button allows exporting of the full **interactive report** or individual components of the report in either JPEG or PNG format. **Export Menu** is displayed in a pop-up window.



Other Features

• Many of the **interactive report** options are also available with the right click mouse button.



A right click anywhere in the active report will display the following menu options.

- o Clear State Selection: This option allows you to deselect all states that are currently selected.
- Clear National/Regional Selection: This option allows you to deselect all regional or national comparisons.
- Filter Map to Selected States: This option allows you to create a filter from the states that are currently selected.
- o *Clear Filter*: This option allows you to clear a filter that has been applied.
- o **Print Menu**: See **Print Menu** for further information.
- o **Export Menu:** See **Export Menu** for further information.
- o **Reset Layout**: This option allows you to return to the original layout of the **interactive report**.
- About InstantAtlas: Provides software version and website information for InstantAtlas, the software
 used to create the interactive report.
- o Settings: Opens Adobe Flash Player settings menu.
- o Global Settings: Provides website and help menu for Adobe Flash Player 10 in pop up window.
- About Adobe Flash Player 10: Provides website and information for Adobe Flash Player 10 in pop up window.

Help Guide

This help guide can be accessed anytime from the Interactive Report I page by selecting the Help Guide button.
 Alternatively it can be found on the influenza vaccination coverage webpage as the user guide to using the interactive report.